

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	§	
Lawrence J. Merboth et al.	§	Confirmation No.: 8379
	§	
Serial No.: 10/799,815	§	Group Art Unit: 2618
	§	
Filed: March 12, 2004	§	Examiner: Wendell, Andrew
	§	
For: POWER SHARING PROCESS IN	§	Atty Docket: MERBOTH 1-9
CELLULAR NETWORK	§	LUCW:0009/FLE/PET/DOO
ARCHITECTURE	§	

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<p>December 9, 2008</p>	<p>/Matthew C. Dooley/</p>
<p>Date</p>	<p>Matthew C. Dooley</p>

APPEAL BRIEF PURSUANT TO 37 C.F.R. §§ 41.31 AND 41.37

This Appeal Brief is being filed in furtherance to the Notice of Appeal filed with the United States Patent and Trademark Office on November 19, 2008.

1. **REAL PARTY IN INTEREST**

The real party in interest is Lucent Technologies, Inc., the Assignee of the above-referenced application by virtue of the Assignment recorded at reel 015092, frame 0120, and dated March 12, 2004. Accordingly, Lucent Technologies, Inc. the Assignee of the above-referenced application will be directly affected by the Board's decision in the pending appeal.

2. **RELATED APPEALS AND INTERFERENCES**

Appellants are unaware of any other appeals or interferences related to this Appeal. The undersigned is Appellants' legal representative in this Appeal.

3. **STATUS OF CLAIMS**

Claims 1-22 are currently pending. Claims 7 and 22 are objected to as being dependent on a rejected base claim. Claims 1-6 and 8-21 are currently under final rejection and, thus, are the subject of this Appeal.

4. **STATUS OF AMENDMENTS**

There are no outstanding amendments to be considered by the Board.

5. **SUMMARY OF CLAIMED SUBJECT MATTER**

The application includes four independent claims, namely, claims 1, 8, 13, and 19, all of which are the subject of this Appeal. The subject matter of these claims is summarized below.

Claims 1, 8, 13, and 19 relates generally to wireless communications systems and, more particularly, to a power sharing process between different service systems to maximize power usage in a base station. *See* Application, page 2, lines 7-9. Accordingly, a single power sharing module may determine whether a first service system corresponding to a first wireless service has un-utilized transmission power that may be allocated to a second wireless service corresponding to a second service system distinct from the first wireless system. *See id.* at page 6, lines 6-13.

With regard to the aspect of the invention set forth in independent claim 1, discussions of the recited features of claim 1 can be found at least in the below cited locations of the specification and drawings. By way of example, present embodiments include a device for allocating power (e.g., 16) comprising: a power sharing module (e.g., 86) configured to receive a plurality of signals corresponding to at least one predicted power allocation and at least one current power allocation (*See* e.g., Application, page 6, lines 6-8; page 17, lines 17-20) and to determine from the plurality of signals whether a first industry standard wireless system corresponding to a first wireless service (e.g., 68; Application, page 16, lines 1-5) has un-utilized transmission power (*See* e.g.,

Application, page 17, lines 14-16); a scheduler (e.g., 80) configured to receive an indication to allocate the un-utilized transmission power (*See* e.g., Application, page 17, lines 15-17) from the first wireless service of the first industry standard wireless system (e.g., 68; Application, page 16, lines 1-5) to a second wireless service of a second industry standard wireless system (e.g., 78; Application, page 17, lines 1-4) and utilize the indication to allocate the un-utilized transmission power (*See* e.g., Application, page 17, line 6-8) for the second wireless service (*See* e.g., Application, page 17, line 1); and wherein the first industry standard wireless system (e.g., 68) and the second industry standard wireless system (e.g., 78) are distinct industry standard wireless systems (*See* e.g., Application, page 7, lines 11-17; page 11, lines 5-16).

With regard to independent claim 8, discussions of the recited features of claim 8 can be found at least in the below cited locations of the specification and drawings. By way of example, present embodiments include a base station (e.g., 12) comprising: a radio frequency system (e.g., 14) having a channel card (e.g., 30) configured to communicate (*See* e.g., Application, page 12, lines 16-18) with a plurality of wireless units (e.g., 18a-18e); and a baseband system (e.g., 16) comprising: a first baseband system (e.g., 68; Application, page 16, lines 1-2) that communicates (*See* e.g., Application, page 16, lines 2-5) with a first group of the plurality of wireless units (e.g., 18a-18e) via a first plurality of communication channels (e.g., 20a-20e and 24a-24e); and a second baseband system (e.g., 78; Application, page 17, lines 1-2) that communicates (*See* e.g., Application, page 17, lines 2-4) with a second group of the plurality of wireless

units (e.g. 18a-18e) via a second plurality of communication channels (e.g., 20a-20e and 24a-24e), the second baseband system (e.g., 78) comprising: a power sharing module (e.g., 86) configured to receive a plurality of signals corresponding to a plurality of predicted power allocation and a plurality of current power allocations (*See e.g.*, Application, page 6, lines 6-8; page 17, lines 17-20) and to determine from the plurality of signals whether the second baseband system (e.g., 78) may allocate power from the first baseband system (*See e.g.*, Application, page 17, lines 14-16); a scheduler (e.g., 80) configured to receive an indication to allocate un-utilized transmission power (*See e.g.*, Application, page 17, lines 15-17) to the second baseband system (e.g., 78) from the first baseband system (e.g. 68) and to utilize the indication to allocate un-utilized transmission power for the second plurality of communication channels (e.g., 24a-24e; Application page 19, lines 22-25); and wherein the first baseband system (e.g. 68) and the second baseband systems (e.g. 78) are distinct baseband systems (*See e.g.*, Application, page 7, lines 11-17; page 11, lines 5-16).

With regard to independent claim 13, discussions of the recited features of claim 13 can be found at least in the below cited locations of the specification and drawings. By way of example, present embodiments include a method for allocating transmission power (*See e.g.*, Application, page 8, lines 11-13) comprising providing a first industry standard wireless system (e.g., 68) and a second industry standard wireless system (e.g., 78) for a plurality of wireless units (e.g., 18a-e); obtaining a plurality of input signals (*See e.g.*, Application, page 8, lines 17-20) corresponding to a plurality of predicted

transmission power allocations (*See e.g.*, Application, page 8, lines 20-24) and a plurality of current transmission power allocations (*See e.g.*, Application, page 6, lines 6-8; page 17, lines 17-20); determining from the plurality of input signals whether the second industry standard wireless system (e.g., 78) may utilize transmission power (*See e.g.*, Application, page 17, lines 15-17) from the first standard wireless system (e.g., 68); allocating transmission power (*See e.g.*, Application, page 18, lines 5-8) to the second industry standard wireless system (e.g., 78) from the first industry standard wireless system (e.g., 68) for at least one communication channel (e.g., 24a-24e) based on an indication of transmission power (*See e.g.*, Application, page 17, lines 16-17) that is unutilized by the first industry standard wireless system (e.g., 68); and wherein the first industry standard wireless system (e.g., 68) and the second industry standard wireless system (e.g., 78) are distinct industry standard wireless systems (*See e.g.*, Application, page 7, lines 11-17; page 11, lines 5-16).

With regard to independent claim 19, discussions of the recited features of claim 19 can be found at least in the below cited locations of the specification and drawings. By way of example, present embodiments include a method for allocating power (*See e.g.*, Application, page 8, lines 11-13), the method comprising the acts of: receiving a plurality of input signals (*See e.g.*, Application, page 8, lines 17-20) corresponding to at least one predicted power allocation for a first industry standard wireless system (*See e.g.*, Application, page 8, lines 20-23) and at least one current power allocation (*See e.g.*, Application, page 6, lines 6-8; page 17, lines 17-20) for the first industry standard

wireless system (e.g., 68) and a second industry standard wireless system (e.g., 78); determining from the plurality of input signals whether non-utilized transmission power from the first industry standard wireless system (e.g., 68) may be allocated (*See* e.g., Application, page 17, lines 15-17) to the second industry standard wireless system (e.g., 78); providing an indication to allocate non-utilized transmission power (*See* e.g., Application, page 17, lines 16-17) from the first industry standard wireless system (e.g., 68) to the second industry standard wireless system (e.g., 78) to a scheduler (e.g., 80); and wherein the first industry standard wireless system (e.g., 68) and the second industry standard wireless system (e.g., 78) are distinct industry standard wireless systems (*See* e.g., Application, page 7, lines 11-17; page 11, lines 5-16).

6. **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

First Ground of Rejection for Review on Appeal:

Appellants respectfully urge the Board to review and reverse the Examiner's first ground of rejection in which the Examiner rejected claims 1, 6, 13, and 17-20 under 35 U.S.C. § 103(a) as being unpatentable over Mantha et al., U.S. Publication No. 2004/0023622 (hereinafter "the Mantha reference"), in view of Lachtar et al., U.S. Publication No. 2003/0125039 (hereinafter "the Lachtar reference").

Second Ground of Rejection for Review on Appeal

Appellants respectfully urge the Board to review and reverse the Examiner's second ground of rejection in which the Examiner rejected claims 8 and 10 under 35

U.S.C. § 103(a) as being unpatentable over the Mantha reference in view of the Lachtar reference, and in further view of Kang, U.S. Publication No. 2001/0016503 (hereinafter “the Kang reference”).

Third Ground of Rejection for Review on Appeal

Appellants respectfully urge the Board to review and reverse the Examiner’s third ground of rejection in which the Examiner rejected claims 2-5, 14-16, and 21 under 35 U.S.C. § 103(a) as being unpatentable over the Mantha reference in view of the Lachtar reference, and in further view of Jeon et al, U.S. Publication No. 2004/0253928 (hereinafter “the Jeon reference”).

Fourth Ground of Rejection for Review on Appeal

Appellants respectfully urge the Board to review and reverse the Examiner’s fourth ground of rejection in which the Examiner rejected claim 9 under 35 U.S.C. § 103(a) as being unpatentable over the Mantha reference in view of the Lachtar reference and the Kang reference, and in further view of Hongo et al., U.S. Publication No. 2003/0022639 (hereinafter “the Hongo reference”).

Fifth Ground of Rejection for Review on Appeal

Appellants respectfully urge the Board to review and reverse the Examiner’s fifth ground of rejection in which the Examiner rejected claims 11 and 12 under 35 U.S.C. §

103(a) as being unpatentable over the Mantha reference in view of the Lachtar reference, and in further view of the Kang reference and the Jeon reference.

7. **ARGUMENT**

As discussed in detail below, the Examiner has improperly rejected the pending claims. Further, the Examiner has misapplied long-standing and binding legal precedents and principles in rejecting the claims under Section 103. Accordingly, Appellants respectfully request full and favorable consideration by the Board, as Appellants respectfully assert that claims 1-22 are currently in condition for allowance.

A. **Ground of Rejection No. 1:**

With respect to the Examiner's rejection of claims 1, 6, 13, and 17-20 under 35 U.S.C. § 103 as being unpatentable over Mantha in view of Lachtar, the Examiner, in pertinent part, stated the following:

Regarding claim 1 ...Mantha fails to teach a first and second industry standard wireless system.

Lachtar teaches a first industry standard wireless system 104, 108A/B, and 110A/B (Fig. 1) and a second industry standard wireless system 106, 112A/B, and 114A/B (Fig. 1); and wherein the first industry standard wireless system and the second industry standard wireless system are distinct industry standard wireless systems (both BTS 108A and 108B or 110A and 110B [Fig. 1] are separate which therefore are distinct industry standard wireless systems since they have different coverage areas etc.). Note, Lachtar deals with allocation (Figs. 1 and 2) between two systems (applicant does not state the two systems are specifically different, ex. CDMA2000 1x for the first and CDMA 2000 1x EVDO for the second) which is similar to applicant's invention of power allocation.

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a first and second industry standard wireless system as taught by Lachtar into Mantha's power allocating system in order to reduce failures (Sections 0007-0008).

[...]

Mantha fails to teach a first and second industry standard wireless system.

Lachtar teaches a first industry standard wireless system 104, 108A/B, and 110A/B (Fig. 1) and a second industry standard wireless system 106, 112A/B, and 114A/B (Fig. 1) and wherein the first industry standard wireless system and the second industry standard wireless system are distinct industry standard wireless systems (both BTS 108A and 108B or 110A and 110B [Fig. 1] are separate which therefore are distinct industry standard wireless systems since they have different coverage areas etc.). Note, Lachtar deals with allocation (Figs. 1 and 2) between two systems (applicant does not state the two systems are specifically different, ex. CDMA2000 1x for the first and CDMA 2000 1x EVDO for the second) which is similar to applicant's invention of power allocation.

[...]

Mantha fails to teach a first and second industry standard wireless system.

Lachtar teaches a first industry standard wireless system 104, 108A/B, and 110A/B (Fig. 1) and a second industry standard wireless system 106, 112A/B, and 114A/B (Fig. 1) and wherein the first industry standard wireless system and the second industry standard wireless system are distinct industry standard wireless systems (both BTS 108A and 108B or 110A and 110B [Fig. 1] are separate which therefore are distinct industry standard wireless systems since they have different coverage areas etc.). Note, Lachtar deals with allocation (Figs. 1 and 2) between two systems (applicant does not state the two systems are specifically different, ex. CDMA2000 1x for the first and CDMA 2000 1x EVDO for the second).

second) which is similar to applicant's invention of power allocation.

Final Office Action, pages 2-6. Appellants respectfully traverse the rejection.

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (B.P.A.I. 1979). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 U.S.P.Q. 580 (C.C.P.A. 1974). However, it is not enough to show that all the elements exist in the prior art since a claimed invention composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). It is important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. *Id.* Specifically, there must be some articulated reasoning with a rational underpinning to support a conclusion of obviousness; a conclusory statement will not suffice. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Indeed, the factual inquiry determining whether to combine references must be thorough and searching, and it must be based on *objective evidence of record*. *In re Lee*, 61 U.S.P.Q.2d 1430, 1436 (Fed. Cir. 2002). Therefore, the Examiner must establish, based on objective evidence of record, reasons supporting a conclusion as to the combinability of the references in making an obviousness rejection.

Omitted Features of Independent Claims 1, 13, and 19

Independent claim 1 recites, *inter alia*, “a scheduler configured to receive an indication to *allocate the un-utilized transmission power* from the *first wireless service of the first industry standard wireless system* to a *second wireless service of a second industry standard wireless system* and utilize the indication to allocate the un-utilized transmission power for the second wireless service and wherein *the first industry standard wireless system and the second industry standard wireless system are distinct industry standard wireless systems.*” (Emphasis added). Similarly, independent claim 13 recites, *inter alia*, “*allocating transmission power to the second industry standard wireless system from the first industry standard wireless system* for at least one communication channel based on an indication of transmission power that is un-utilized by the first industry standard wireless system and wherein *the first industry standard wireless system and the second industry standard wireless system are distinct industry standard wireless systems.*” (Emphasis added). Likewise, independent claim 19 recites, *inter alia*, “*providing an indication to allocate non-utilized transmission power from the first industry standard wireless system to the second industry standard wireless system to a scheduler and wherein the first industry standard wireless system and the second industry standard wireless system are distinct industry standard wireless systems.*” (Emphasis added).

The Examiner admitted that the Mantha reference fails to teach power sharing between *a first and a second industry standard wireless system*. See Final Office Action,

page 3. Indeed, the Mantha reference, at best, teaches power sharing between *two services* (voice and data) signals of *a single wireless system*. See Mantha, FIG. 5; paragraph 11, lines 1-2, paragraph 48, lines 1-6, and paragraph 88, lines 15-18. To overcome this admitted deficiency, the Examiner has relied on the Lachtar reference to teach a first and a second industry wireless standard wireless system. See Office Action, page 3. Appellants assert, however, that the Lachtar reference does not disclose such features and, therefore, fails to overcome the admitted deficiencies of the Mantha reference.

In particular, the Lachtar reference only teaches utilizing a *single industry standard wireless system* with multiple base station controllers (BSC 104 and BSC 106) and base station transceiver systems (BTS 108a&b and BTS 112a&b). See Lachtar, FIG. 1; paragraph 20, lines 4-7. The Examiner appears to assert that because the multiple base station transceiver systems may have different coverage areas, the multiple base stations are operating according to two distinct industry wireless standards (see Final Office Action, page 3, lines 7-8). However, such an interpretation of the Lachtar reference is clearly in error.

Contrary to the assertion of the Examiner, multiple base station controllers, as set forth in Lachtar, each utilizing *a single industry standard wireless system* in distinct coverage areas cannot reasonably be considered to be the same as a first industry standard wireless system and a second industry standard wireless system as *distinct* industry

standard wireless systems, as recited in independent claims 1, 13, and 19. Indeed, no support for such an interpretation can be found in either the specification of the instant application or in the cited prior art and the Examiner has failed to show any other source that supports the assertion that one of ordinary skill in the art could interpret “distinct industry standard wireless systems” as referring to distinct coverage areas. As such, Appellants respectfully assert that one of ordinary skill in the art would not interpret “distinct industry standard wireless systems” as referring to multiple base stations with distinct coverage areas.

Moreover, the Lachtar reference itself specifically precludes reading multiple base station controllers as each utilizing a *distinct* industry standard wireless system. The Lachtar reference describes a communication system 100 as operating utilizing multiple base station controllers that operate “according to the TIA/EIA/IS95 CDMA standard, or subsequent versions thereof, or the TIA/EIA/IS2000 CDMA standard.” *Id.* (emphasis added). Therefore, the system 100 of the Lachtar reference on which the Examiner relies, utilizes only a *single industry wireless standard*, i.e., *either* an IS95 or IS2000 CDMA standard, and not *distinct* industry standard wireless systems. As such, Appellants respectfully assert the Lachtar reference does not disclose, teach, or even suggest power sharing between a first and a second industry standard wireless system wherein the first and second industry standard wireless systems are *distinct industry standard* wireless systems, as recited in claims 1, 13, and 19.

In yet another erroneous interpretation of the Lachtar reference, the Examiner has construed BSC 104 and BTS 108a&b as a first industry standard wireless system and BSC 106 and BTS 112a&b as a second industry standard wireless system. *See* Office Action, page 3. Assuming *arguendo* that BSC 104 and BTS 108a&b as well as BSC 106 and BTS 112a&b can be construed as first and second industry wireless systems, there is no teaching in the Lachtar reference of *allocating transmission power* or providing an indication to *allocate non-utilized transmission power* from the first industry standard wireless system to the second industry standard wireless system, as recited in independent claims 1, 13, and 19. Indeed, it appears that *because* BSC 104 and BTS 108a&b are a geographically separate system from BSC 106 and BTS 112a&b, no power is allocated between the two systems. Indeed, Appellants assert that each has its own power supply and allocation of power between the two systems would be impractical. As such, there is no teaching in the Lachtar reference that suggests *allocating*, i.e. sharing, of power of between the distinct systems. Accordingly, for at least this additional reason, the Mantha reference and the Lachtar reference, taken alone or in hypothetical combination, do not teach or show either *allocating transmission power* or providing an indication to *allocate non-utilized transmission power* from the first industry standard wireless system to the second industry standard wireless system, as recited in independent claims 1, 13, and 19.

For at least these reasons, Appellants assert that the Lachtar reference fails to overcome the admitted deficiencies of the Mantha reference. Therefore, neither the

Mantha reference, nor the Lachtar reference, taken alone or in hypothetical combination, disclose, teach or suggest all the features of the independent claims and cannot support a *prima facie* case. In view of the remarks set forth above, Appellants respectfully submit that the Examiner has not satisfied his burden of establishing a *prima facie* case of obviousness under Section 103 that claims 1, 13, and 19 are obvious in view of the cited references. Accordingly, for at least these reasons among others, Appellants respectfully request that the Board overturn the rejections under 35 U.S.C. § 103(a) of independent claims 1, 13, and 19, and all claims depending therefrom.

Omitted Features of Dependent Claim 6

In addition to the reasons set forth above with respect to claim 1, Appellants believe dependent claim 6 to recite subject that is not found in the cited art. Specifically, the Mantha reference and the Lachtar reference fail to teach all elements of dependent claim 6. In rejecting claim 6, the Examiner stated: *Regarding claim 6, the combination including Mantha teaches wherein the power sharing module provides the scheduler with the indication to allocate the un-utilized transmission power within a 2 power control group interval (Sections 0008-0010 and 0057-0069).* Dependent claim 6 recites, *inter alia*, “the power sharing module provides the scheduler with the indication to allocate the un-utilized transmission power *within a 2 power control group interval.*” (Emphasis added). The Examiner relied upon the Mantha reference to teach allocating the un-utilized transmission power *within a 2 power control group interval.* See Final Office Action, page 3. However, the cited sections of the Mantha reference, as well as the remainder of the Mantha reference, fail to teach allocating the un-utilized transmission power *within a 2 power control group interval.* At best, the cited portions of the Mantha reference describe allocating a power budget between at least two communication services. See Mantha, paragraph 8. However, Appellants allege that allocating a power

budget between at least two communication services cannot reasonably be considered the same as allocating the un-utilized transmission power *within a 2 power control group interval*. Thus, Mantha does not disclose such features. Furthermore, Appellants are unaware of, and the Examiner has not cited to any portion of Lachtar that discloses such features. As such, Appellants assert that the Lachtar reference fails to remedy the deficiency of the Mantha reference.

Accordingly, Appellants respectfully submit that the Examiner has not satisfied his burden of establishing a *prima facie* case of obviousness under Section 103 with respect to claim 6. Therefore, for at least these reasons, among others, Appellants respectfully request that the Board overturn the rejections under 35 U.S.C. § 103(a) of dependent claim 6.

B. Ground of Rejection No. 2:

With respect to the Examiner's rejection of claims 8 and 10 under 35 U.S.C. § 103(a) as being unpatentable over the Mantha reference in view of the Lachtar reference and further view of the Kang reference, the Examiner, in pertinent part, stated the following:

Regarding claim 8 ... Mantha fails to teach a first and second industry standard wireless system and a channel card.

Lachtar teaches a first industry standard wireless system 104, 108A/B, and 110A/B (Fig. 1) and a second industry standard wireless system 106, 112A/B, and 114A/B (Fig. 1) and wherein the first industry standard wireless system and the second industry standard wireless system are distinct industry standard wireless systems (both BTS 108A and 108B or 110A and 110B [Fig. 1] are separate which therefore are distinct industry standard wireless

systems since they have different coverage areas etc.). Note, Lachtar deals with allocation (Figs. 1 and 2) between two systems (applicant does not state the two systems are specifically different, ex. CDMA2000 1x for the first and CDMA 2000 1x EVDO for the second) which is similar to applicant's invention of power allocation.

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a first and second industry standard wireless system as taught by Lachtar into Mantha's power allocating system in order to reduce failures (Sections 0007-0008).

Mantha and Lachtar fail to teach a channel card.

Kang's CDMA base station system teaches a radio frequency system having a channel card 103 (Fig. 1) configured to communicate with a plurality of wireless units 111 and 112 (Fig. 1).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a channel card as taught by Kang into a first and second industry standard wireless system as taught by Lachtar into Mantha et al. system for allocating power in order to minimize the deterioration of the call quality in a CDMA system (Section 0020).

Final Office Action, pages 8-10. Appellants respectfully traverse these rejections.

As set forth above, the burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (B.P.A.I. 1979). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 U.S.P.Q. 580 (C.C.P.A. 1974). However, it is not enough to show that all the elements exist in the prior art since a claimed invention composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *KSR*

International Co. v. Teleflex Inc., 127 S.Ct. 1727, 1741 (2007). Additionally, it is important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. *Id.* Specifically, there must be some articulated reasoning with a rational underpinning to support a conclusion of obviousness; a conclusory statement will not suffice. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Indeed, the factual inquiry determining whether to combine references must be thorough and searching, and it must be based on *objective evidence of record*. *In re Lee*, 61 U.S.P.Q.2d 1430, 1436 (Fed. Cir. 2002). Therefore, the Examiner must establish, based on objective evidence of record, reasons supporting a conclusion as to the combinability of the references in making an obviousness rejection.

Omitted Features of Independent Claim 8

Claim 8 recites, *inter alia*, “a power sharing module configured to...determine from the plurality of signals whether *the second baseband system* may allocate power from the *first baseband system*, and a scheduler configured to receive an indication to allocate un-utilized transmission power to the second baseband system from the first baseband system and to utilize the indication to *allocate un-utilized transmission power* for the second plurality of communication channels and wherein the first baseband system and the second baseband systems are *distinct* baseband systems.” (Emphasis added).

The Examiner has rejected independent claim 8 under similar reasoning to that applied to independent claims 1, 13, and 19. Initially, it should be noted that in doing so, the Examiner has relied on the Mantha reference to teach a power sharing module configured to...determine from the plurality of signals whether *the second baseband system* may allocate power from the *first baseband system*. See Final Office Action, page 8. In making this rejection, the Examiner has failed to show that the Mantha reference teaches a *second baseband system* that may allocate power from a *first baseband system*.

As set forth in the specification of the instant Application, the first and second baseband systems are able to *each* transmit voice *and* data. See Application, page 16, lines 1-5 and page 17, lines 1-4. In contrast, the Mantha reference teaches, at best, power sharing between two *services* (i.e. voice and data) in one baseband system. See Mantha, paragraph 88. Accordingly, the Examiner has erred in relying on the Mantha reference to teach a power sharing module configured to determine from the plurality of signals whether *the second baseband system* may allocate power from the *first baseband system*. Furthermore, arguments analogous to those presented above with respect to the Mantha and Lachtar references can be applied to the prior art failing to teach allocating *un-utilized transmission power* between a first and a second baseband system where the baseband systems are *distinct*.

Specifically, the Lachtar reference does not overcome the admitted deficiencies of the Mantha reference. In particular, neither the Mantha reference nor the Lachtar reference disclose a scheduler configured to receive an indication to allocate un-utilized

transmission power to the second baseband system from the first baseband system and to utilize the indication to *allocate un-utilized transmission power* for the second plurality of communication channels and wherein the first baseband system and the second baseband systems are *distinct* baseband systems.

The Kang reference, also applied in the rejection of claim 8, fails to cure the deficiencies of the Mantha reference and the Lachtar reference noted above. The Kang reference is apparently relied upon merely as teaching a channel card configured to communicate with a plurality of wireless units. *See* Office Action, page 8. However, Appellants are unaware of, and the Examiner has not cited to anything in the Kang reference that discloses allocating *un-utilized transmission power* between a first and a second baseband system where the baseband systems are *distinct* baseband systems.

Accordingly, Appellants respectfully assert the Mantha, Lachtar, and Kang references, taken alone or in hypothetical combination fail to teach or show all of the features of independent claim 8. Appellants, therefore, assert that independent claim 8, as well as all claims depending therefrom, are allowable. In view of the remarks set forth above, Appellants respectfully submit that the Examiner has not satisfied his burden of establishing a *prima facie* case that claim 8 is obvious in view of the cited references.

For at least these reasons, among others, Appellants respectfully request that the Board overturn the rejections under 35 U.S.C. § 103(a) of independent claim 8 and all claims depending therefrom.

C. **Ground of Rejection No. 3:**

With respect to the Examiner's rejection of claims 2-5, 14-16, and 21 under 35 U.S.C. § 103(a) as being unpatentable over the Mantha reference in view of the Lachtar reference and further view of the Jeon reference, Appellants respectfully disagree. The Jeon reference fails to overcome the deficiencies set forth above with respect to independent claims 1, 13, and 19, from which claims 2-5, 14-16, and 21 depend. The Jeon reference is apparently relied upon merely as teaching a wireless service that comprises a CDMA2000 1x service. *See* Office Action, page 7. However, Appellants are unaware of, and the Examiner has not cited to anything in the Jeon reference that discloses *allocating transmission power* or providing an indication to *allocate non-utilized transmission power* from the first industry standard wireless system to the second industry standard wireless system, wherein the first and second industry standard wireless systems are *distinct industry standard* wireless systems, as recited in independent claims 1, 13, and 19.

Accordingly, Appellants respectfully assert that the Jeon reference fails to remedy the deficiencies of the Mantha and Lachtar references with respect to the features of independent claims 1, 13, and 19. Appellants, therefore, assert that independent claims 1,

13, and 19, as well as dependent claims 2-5, 14-16, and 21 which depend therefrom, are allowable. For at least these reasons, among others, Appellants respectfully request that the Board overturn the rejections under 35 U.S.C. § 103(a) of dependent claims 2-5, 14-16, and 21.

D. **Ground of Rejection No. 4:**

With respect to the Examiner's rejection of claim 9 under 35 U.S.C. § 103(a) as being unpatentable over the Mantha reference in view of the Lachtar reference and the Kang reference and in further view of the Hongo reference, the Examiner stated the following:

Mantha, Lachtar, and Kang fail to teach determining a power average and instant power of a signal.

Hongo et al. peak limiter and multi-carrier amplification apparatus teaches a power system that determines a radio frequency output power average 11 (Fig. 3) and an instant radio frequency power 12 (Fig. 3).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate determining a power average and instant power of a signal as taught by Hongo et al. into a channel card as taught by Kang into a first and second industry standard wireless system as taught by Lachtar into Mantha et al. system for allocating power in order to enhance the power efficiency (Section 0031).

Final Office Action, pages 10-11.

Omitted Features of Dependent Claim 9

Dependent claim 9 recites, *inter alia*, “a power system that determines a radio frequency output power average and an instant radio frequency power, the power system being configured to *provide power for transmissions from the first baseband system to the first group of the plurality of wireless units and from the second baseband system to the second group of the plurality of wireless units.*” (Emphasis added). The Examiner relied upon the Hongo reference to teach peak limiter and multi-carrier amplification apparatus teaches a power system that determines a radio frequency output power average and an instant radio frequency power. *See* Final Office Action, page 10.

However, Appellants assert the cited sections of the Hongo reference, as well as the remainder of the Hongo reference, fail to teach that the power system is configured to *provide power for transmissions from the first baseband system to the first group of the plurality of wireless units and from the second baseband system to the second group of the plurality of wireless units.* Moreover, this portion of dependent claim 9 is not taught in the Mantha, Lachtar, or Kang references. Furthermore, Appellants assert that the Hongo reference does not overcome the deficiencies of the Mantha, Lachtar, or Kang references with respect to claim 8. Specifically, Hongo does not disclose wherein the first baseband system and the second baseband system are distinct baseband systems.

Accordingly, Appellants respectfully assert that the Hongo reference fails to remedy the deficiencies of the Mantha, Lachtar, and Kang references with respect to the

features of both independent claim 8 and dependent claim 9. Thus, Appellants respectfully submit that the Examiner has not satisfied his burden of establishing a *prima facie* case of obviousness under Section 103 that claim 9 is obvious in view of the cited references. Therefore, for at least these reasons, among others, Appellants respectfully request that the Board overturn the rejections under 35 U.S.C. § 103(a) of dependent claim 9.

E. **Ground of Rejection No. 5:**

With respect to the Examiner's rejection of claims 11 and 12 under 35 U.S.C. § 103(a) as being unpatentable over the Mantha reference in view of the Lachtar reference, and in further view of the Kang reference and the Jeon reference, Appellants respectfully disagree. The Jeon reference fails to overcome the deficiencies set forth above with respect to independent claim 8, from which claims 11 and 12 depend. The Jeon reference is apparently relied upon merely as teaching a wireless service that comprises a CDMA2000 1x service. *See* Office Action, page 11. However, Appellants are unaware of, and the Examiner has not cited to, anything in the Jeon reference that discloses *allocating transmission power* or providing an indication to *allocate non-utilized transmission power* from the first industry standard wireless system to the second industry standard wireless system, wherein the first and second industry standard wireless systems are *distinct industry standard* wireless systems, as recited in independent claim 8.

Accordingly, Appellants respectfully assert that the Jeon reference fails to remedy the deficiencies of the Mantha, Lachtar, and Kang references with respect to the features of independent claim 8. Appellants, therefore, assert that independent claim 8, as well as dependent claims 11 and 12 which depend therefrom, are allowable. For at least these reasons, among others, Appellants respectfully request that the Board overturn the rejections under 35 U.S.C. § 103(a) of dependent claims 11 and 12.

Conclusion

Appellants respectfully submit that all pending claims are in condition for allowance. However, if the Examiner or Board wishes to resolve any other issues by way of a telephone conference, the Examiner or Board is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

Date: December 9, 2008

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8. **APPENDIX OF CLAIMS ON APPEAL**

Listing of Claims:

1. A device for allocating power comprising:
a power sharing module configured to receive a plurality of signals corresponding to at least one predicted power allocation and at least one current power allocation and to determine from the plurality of signals whether a first industry standard wireless system corresponding to a first wireless service has un-utilized transmission power;
a scheduler configured to receive an indication to allocate the un-utilized transmission power from the first wireless service of the first industry standard wireless system to a second wireless service of a second industry standard wireless system and utilize the indication to allocate the un-utilized transmission power for the second wireless service; and
wherein the first industry standard wireless system and the second industry standard wireless system are distinct industry standard wireless systems.

2. The device, as set forth in claim 1, wherein the first wireless service comprises a CDMA2000 1x service.

3. The device, as set forth in claim 2, wherein the first industry standard wireless system comprises a 1x system.

4. The device, as set forth in claim 1, wherein the second wireless service comprises a CDMA2000 1x evolution data and voice (EVDV) service.

5. The device, as set forth in claim 4, wherein the second industry standard wireless system comprises an EVDV system.

6. The device, as set forth in claim 1, wherein the power sharing module provides the scheduler with the indication to allocate the un-utilized transmission power within a 2 power control group interval.

7. The device, as set forth in claim 1, wherein the indication to allocate the un-utilized transmission power is based on subtracting from an overload setting:

- a current total power utilized by the first industry standard wireless system
- and the second industry standard wireless system minus the scheduled power in a previous time interval;
- a delta between a current supplemental power and a predicted supplemental power for the first industry standard wireless system;
- and
- a marginal power that comprises at least one parameter setting.

8. A base station comprising:

a radio frequency system having a channel card configured to communicate with a plurality of wireless units; and

a baseband system comprising:

a first baseband system that communicates with a first group of the plurality of wireless units via a first plurality of communication channels; and

a second baseband system that communicates with a second group of the plurality of wireless units via a second plurality of communication channels, the second baseband system comprising:

a power sharing module configured to receive a plurality of signals corresponding to a plurality of predicted power allocation and a plurality of current power allocations and to determine from the plurality of signals whether the second baseband system may allocate power from the first baseband system;

a scheduler configured to receive an indication to allocate un-utilized transmission power to the second baseband system from the first baseband system and to utilize the indication to allocate un-utilized transmission power for the second plurality of communication channels; and

wherein the first baseband system and the second baseband systems are distinct baseband systems.

9. The base station, as set forth in claim 8, comprising a power system that determines a radio frequency output power average and an instant radio frequency power, the power system being configured to provide power for transmissions from the first baseband system to the first group of the plurality of wireless units and from the second baseband system to the second group of the plurality of wireless units.

10. The base station, as set forth in claim 8, wherein the channel card comprises at least one transceiver configured to communicate with the plurality of wireless units.

11. The base station, as set forth in claim 8, wherein the first baseband system is a 1x system that provides CDMA2000 1x service to the first group of the plurality of wireless units.

12. The base station, as set forth in claim 8, wherein the second baseband system is an evolution data and voice (EVDV) system that provides CDMA2000 1xEVDV service to the second group of the plurality of wireless units.

13. A method for allocating transmission power comprising:
providing a first industry standard wireless system and a second industry standard wireless system for a plurality of wireless units;

obtaining a plurality of input signals corresponding to a plurality of predicted transmission power allocations and a plurality of current transmission power allocations;

determining from the plurality of input signals whether the second industry standard wireless system may utilize transmission power from the first standard wireless system;

allocating transmission power to the second industry standard wireless system from the first industry standard wireless system for at least one communication channel based on an indication of transmission power that is un-utilized by the first industry standard wireless system; and

wherein the first industry standard wireless system and the second industry standard wireless system are distinct industry standard wireless systems.

14. The method, as set forth in claim 13, wherein providing the first industry standard wireless system comprises providing a CDMA2000 1x service to a first portion of the plurality of wireless units.

15. The method, as set forth in claim 14, wherein providing the second industry standard wireless system comprises providing a CDMA2000 1x evolution data and voice (EVDV) service to a second portion of the plurality of wireless units.

16. The method, as set forth in claim 15, comprising transmitting the at least one communication channel to at least one of the second portion of the plurality of wireless units.

17. The method, as set forth in claim 13, wherein the plurality of wireless units comprises a plurality of cellular telephones.

18. The method, as set forth in claim 13, wherein the plurality of wireless units comprises at least one portable computer system.

19. A method for allocating power, the method comprising the acts of:
receiving a plurality of input signals corresponding to at least one predicted power allocation for a first industry standard wireless system and at least one current power allocation for the first industry standard wireless system and a second industry standard wireless system;
determining from the plurality of input signals whether non-utilized transmission power from the first industry standard wireless system may be allocated to the second industry standard wireless system;
providing an indication to allocate non-utilized transmission power from the first industry standard wireless system to the second industry standard wireless system to a scheduler; and

wherein the first industry standard wireless system and the second industry standard wireless system are distinct industry standard wireless systems.

20. The method, as set forth in claim 19, comprising the act of allocating the non-utilized transmission power based on the indication to allocate non-utilized transmission power from the first industry standard wireless system to the second industry standard wireless system for transmissions to a wireless unit.

21. The method, as set forth in claim 19, wherein the at least one communication channel comprises a CDMA2000 1x evolution data and voice (EVDV) communication channel.

22. The method, as set forth in claim 19, wherein the indication to allocate non-utilized transmission power is based on subtracting from an overload setting:
a current total power utilized by the first industry standard wireless system and the second industry standard wireless system minus the scheduled power in a previous time interval;

a delta between a current supplemental power and a predicted supplemental power for the first industry standard wireless system; and

a marginal power that comprises at least one parameter setting.

9. **EVIDENCE APPENDIX**

None.

10. **RELATED PROCEEDINGS APPENDIX**

None.